

The Regulations of Connecticut State Agencies are amended by adding a new section 22a-174-22a as follows:

(NEW)

22a-174-22a. The Nitrogen Oxides (NO_x) Budget Program

(a) Definitions. For the purposes of this section:

- (1) “Account” means the portion of the NO_x Allowance Tracking System (NATS) where allowances are held by a budget source in a compliance account or by any person in a general account.
- (2) “Account number” means the identification number assigned by the Administrator for an account in which allowances are held.
- (3) “Acquiring account” means the account of the party in an allowance transfer that obtains allowances through whatever means, including but not limited to purchase, trade, auction, or gift. An acquiring account may be a compliance account or a general account.
- (4) “Administrator” means Administrator of the United States Environmental Protection Agency or designee who administers the NATS and the NO_x Emissions Tracking System (NETS).
- (5) “Allocation” means the initial deposit of allowances in the compliance account of a budget source, as set forth in this section.
- (6) “Allocation period” means the time period designated by the commissioner for which an allowance is allocated.
- (7) “Allowance” means the limited authorization to emit one (1) ton of NO_x during a specified control period. All allowances shall be allocated, transferred, or used as whole allowances. To determine the number of whole allowances, the number of allowances shall be rounded down for decimals less than 0.5, and rounded up for decimals of 0.5 or greater.
- (8) “Allowance deduction” means the withdrawal of allowances for permanent retirement by the Administrator from a compliance or general account in the NATS.
- (9) “Allowance transfer” means the conveyance of one or more allowances from an account

to an acquiring account by whatever means, including but not limited to purchase, trade, auction, or gift.

- (10) "Allowance transfer deadline" means midnight of December 31 of any calendar year, and is the deadline by which an allowance transfer request may be submitted to the Administrator to effect an allowance transfer to meet the requirements of this section for the most recent control period. An official U.S. Postal Service postmark or electronic time stamp shall establish the date of submittal.
- (11) "Alternative monitoring system" means any method approved by the commissioner designed to provide direct or indirect data of emissions in units of mass per time period, pollutant concentrations, and/or volumetric flow.
- (12) "Authorized Account Representative" or "AAR" means the person authorized to transfer and otherwise manage allowances and certify reports to the NATS and the NETS on behalf of the owner of a budget source or the owner of a general account. Such owner may also authorize an Alternate AAR, who shall transfer and otherwise manage allowances and certify reports to the NATS and the NETS on behalf of such owner in place of the AAR. The authorization of an AAR or an Alternate AAR shall be made in writing by such owner and submitted to the commissioner.
- (13) "Banked allowance" means an allowance that is not used to reconcile emissions in the designated year of allocation, but is retained for use in a future control period and identified as such in a compliance or general account.
- (14) "Banking" means the retention, in a compliance or general account, of unused allowances from one control period for use in a future control period.
- (15) "Baseline" means the NO_x emission inventory approved by the Ozone Transport Commission on June 13, 1995, as the official baseline emissions of May 1 through September 30, 1990.
- (16) "Baseline control period emissions," for the purpose of an owner or operator of a stationary source opting into this NO_x Budget Program, means a representative average of the actual emissions of two (2) consecutive control periods within five (5) years preceding the application to opt into this section.
- (17) "Baseline heat input," for the purpose of an owner or operator of a stationary source opting into this NO_x Budget Program, means the heat derived from the combustion of fuel in such stationary source during the emission of baseline control period emissions.

- (18) "Baseline utility unit" means a fossil-fuel-fired combustion unit that generates electricity at a rated output of fifteen (15) megawatts (MW) or more that operated during the 1990 control period.
- (19) "Boiler" means a facility that combusts fossil fuel to produce steam, or to heat water or any other heat transfer medium.
- (20) "Budget source" means:
 - (A) A baseline utility unit;
 - (B) A cogeneration unit;
 - (C) An industrial unit;
 - (D) A municipal waste combustor unit;
 - (E) A new unit;
 - (F) An opt in unit; or
 - (G) A new utility unit.
- (21) "Clean Air Act" means the Clean Air Act as amended in 1990 (42 U.S.C. §§ 7401-7626).
- (22) "Cogeneration unit" means a fossil-fuel-fired combustion unit that generates electricity at a rated output of fifteen (15) megawatts or more by employing "cogeneration technology," as defined in section 16-1(a)(21) of the Connecticut General Statutes.
- (23) "Commissioner" means the Commissioner of Environmental Protection or his designee.
- (24) "Compliance account" means the account of a budget source in the NATS that holds current and future-year allowances useable for a specific designated control period as indicated by each allowance's unique serial number.
- (25) "Continuous emissions monitoring system" or "CEMS" means the equipment required by this section used to sample, analyze, and measure NO_x emissions to provide a permanent record of such emissions expressed in pounds per MMBtu and in tons per day. The following systems are component parts of a CEMS:

DRAFT NO_x BUDGET PROGRAM RULE -- JANUARY 7, 1998

- (A) Nitrogen oxides pollutant concentration monitor;
 - (B) Diluent gas monitor (oxygen or carbon dioxide);
 - (C) A data acquisition and handling system; and
 - (D) Flow monitoring systems (where appropriate).
- (26) "Control period" means the period from May 1 through September 30 of each calendar year.
- (27) "Current year" means the calendar year in which an action occurs or for which an allocation is designated.
- (28) "Early reduction credit" means a reduction of NO_x emissions below the most stringent NO_x emission rate applicable to a budget source, achieved during the control periods of 1997 or 1998 and approved by the commissioner.
- (29) "Emission budget" or "budget" means the maximum amount of NO_x emissions that may be emitted by the budget sources in Connecticut during a given control period, where such budget is determined by the commissioner in accordance with the Ozone Transport Commission Memorandum of Understanding dated September 27, 1994.
- (30) "Enforceable," for the purpose of quantifying early reduction credit, means retrospective approval by the commissioner.
- (31) "Excess emissions" means emissions of nitrogen oxides discovered by the commissioner or reported by the owner or operator of a budget source during the control period, rounded to the nearest whole ton, which exceed the number of allowances in the budget source's NATS compliance account as of the allowance transfer deadline of the control period.
- (32) "Fossil fuel" means natural gas, petroleum, coal, or any form of solid, liquid or gaseous fuel derived wholly, or in part, from such material.
- (33) "Fossil-fuel-fired" means combustion of, or ability to combust, fossil fuel, any derivative of fossil fuel alone, or a combination of fuels, of which fossil fuel comprises fifty-one percent (51%) or greater of the annual heat input, measured in Btu.
- (34) "General account" means an account in the NATS that is not a compliance account.

- (35) "Heat input" means heat derived from the combustion of fuel in a budget source, exclusive of the heat derived from preheated combustion air, recirculated flue gas, or exhaust from other sources.
- (36) "Indirect heat exchanger" means combustion equipment in which the flame or products of combustion are separated from any contact with the principal material in the process by metallic or refractory walls, including, but not limited to, steam boilers, vaporizers, melting pots, heat exchangers, column reboilers, fractioning column feed preheaters, reactor feed preheaters, fuel-fired reactors such as steam hydrocarbon reformer heaters, and pyrolysis heaters.
- (37) "Industrial unit" means a fossil-fuel-fired boiler or indirect heat exchanger with a maximum rated heat input capacity of 250 MMBtu/hr or more.
- (38) "Maximum heat input capacity" means the ability of a budget source to combust a stated maximum amount of fuel on a steady-state basis, as determined by the physical design and characteristics of the facility. Maximum heat input capacity is expressed in MMBtu per hour, which is the product of the total gross caloric value of the fuel, expressed in Btu per pound, multiplied by the maximum fuel feed rate in the combustion device, expressed in mass of fuel/hour.
- (39) "Municipal solid waste" means municipal solid waste as defined in section 22a-207 of the Connecticut General Statutes.
- (40) "Municipal waste combustor unit" or "MWC unit" means any device, exclusive of associated air pollution control equipment, that combusts municipal solid waste, exclusive of those devices combusting a single-item waste stream of tires.
- (41) "New unit" means a cogeneration, industrial, or municipal waste combustor unit that began operating after September 30, 1990.
- (42) "New utility unit" means a fossil-fuel-fired combustion unit that generates electricity at a rated output of fifteen (15) megawatts (MW) or more that began operating after September 30, 1990.
- (43) "NO_x Allowance Tracking System" or "NATS" means the electronic record keeping and reporting system that records the effective date of an allowance transfer, the names and account numbers of the originating and acquiring accounts, the number of allowances transferred and their serial numbers, and that reports such information to transferees, transferors, AARs, and the states where the owners of the originating and acquiring accounts reside.

- (44) “NO_x Emissions Tracking System” or “NETS” means the electronic system used to track NO_x emissions from budget sources.
- (45) “Non-Part 75 budget source” means a budget source not subject to the requirements for NO_x emissions monitoring under 40 CFR Part 75.
- (46) “Opt in,” “opt into,” or “opting in” means to voluntarily participate and agree to be subject to the requirements of this section.
- (47) “OTC MOU” means the Memorandum of Understanding signed by representatives of Connecticut, Delaware, the District of Columbia, Maine, Maryland, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont as members of the Ozone Transport Commission on September 27, 1994. A copy of the OTC MOU will be maintained at the offices of the Department of Environmental Protection.
- (48) “Owner or operator” means any person who owns, operates, controls, or supervises a budget source.
- (49) “Ozone Transport Region” or “OTR” means the states and jurisdictions designated by section 184(a) of the Clean Air Act.
- (50) “Quantifiable” means capable of being calculated on a reliable and replicable basis for calculating the amount of an emission reduction approved by the commissioner and the Administrator.
- (51) “Real” means a reduction of actual emissions released into the air, quantified retrospectively, net of any consequential increase in actual emissions resulting from shifting demand.
- (52) “Regional NO_x budget” means the maximum amount of NO_x emissions that may be emitted by the budget sources in the OTR during a given control period, in accordance with the OTC MOU.
- (53) “Replacement source” means a new combustion source or the heat or power purchased from the owner of a new combustion source that replaces a budget source. The replacement source must be on the same or contiguous property as the budget source being replaced and have a maximum heat output rate that is equal to or greater than the maximum heat output rate of the budget source being replaced. Alternatively, the replacement source may have a power output rate that is equal to or greater than the power output rate of the budget source being replaced, and incorporate technology capable of controlling multiple combustion pollutants simultaneously, with greater fuel

efficiency and significantly greater waste reduction, relative to the performance of technology in widespread commercial use as of November 15, 1990.

- (54) “Repowering” or “repowers,” for the purpose of an early reduction credit, means:
- (A) “Qualifying repowering technology” as defined by 40 CFR Part 72; or
 - (B) The discontinued use of a budget source and its replacement by either a new combustion source or the purchase of heat or power from the owner of a new combustion source, provided that:
 - (i) the replacement source is on the same or contiguous property as the budget source being replaced; and
 - (ii) the replacement source has a maximum heat output rate that is equal to or greater than the maximum heat output rate of the budget source being replaced, or
 - (iii) the replacement source has a power output rate that is equal to or greater than the power output rate of the budget source being replaced; and
 - (iv) the replacement source incorporates technology capable of controlling multiple combustion pollutants simultaneously, with greater fuel efficiency and significantly greater waste reduction, relative to the performance of technology in widespread commercial use as of November 15, 1990.
- (55) “State implementation plan” or “SIP” means a plan required by section 110 of the Clean Air Act which has been approved by the Administrator.
- (56) “Surplus” means an emission reduction that was not required by any provision of the SIP at the time the reduction was made, relied upon in an applicable attainment demonstration, or required by state or federal permit or order. For the purpose of an early reduction credit, emission reductions are surplus if the permitted allowable emissions are below the emission limit established by this section and if the state and/or federal permit are issued after the effective date of this section.
- (57) “Transferee” means the person to whom an allowance is conveyed through an allowance transfer.
- (58) “Transferor” means the person who conveys an allowance through an allowance

transfer.

(b) Applicability.

- (1) As of May 1, 1999, this section shall apply to the owner or operator of a budget source, excluding MWC units. This section shall not apply to the owner or operator of a MWC unit until May 1, 2003, except as provided in subparagraphs (i)(1)(B)(ii) and (i)(1)(C)(ii) of this section.
- (2) Any person who owns, operates, controls, or leases as a lessee a stationary source, other than a budget source, may opt into this section in accordance with the following manner:
 - (A) The owner or operator shall submit to the commissioner, on forms prescribed by the commissioner, an application that documents the baseline control period emissions of the stationary source. The baseline control period emissions of the stationary source shall not be greater than the allowable emissions established for the stationary source by permit or order. The baseline control period emissions of the stationary source shall be added to the NO_x emission budget for the state identified in subdivision (c)(1) before the allocation of allowances to the owner or operator of the stationary source;
 - (B) Upon the commissioner's approval of the application, the stationary source shall be considered an opt in budget source and shall be subject to all terms and conditions of this section;
 - (C) An allowance allocation shall be assigned to the opt in budget source pursuant to subparagraph (C) of subdivision (d)(6) of this section, and subparagraph (C) of subdivision (d)(8) of this section, as applicable;
 - (D) The allocation of allowances to an opt in budget source shall not require adjustments to the allocation of allowances to budget sources;
 - (E) An opt in budget source's federally enforceable operating permit is modified to include the applicable requirements of this section, authority to trade allowances, and authority to emit NO_x in accordance with the allowances allocated or obtained by the allowance transfer deadline; and
 - (F) The owner or operator of an opt in budget source who subsequently ceases or curtails operations after opting in shall be subject to an allowance adjustment equivalent to the emissions reduced through the cessation or curtailment of

operations that emit NO_x, rounded up or down to the nearest whole ton.

- (3) If the Administrator redesignates any area of Connecticut as attainment of the national ambient air quality standard for ozone pursuant to Clean Air Act section 107, the owner or operator of any budget source in that area shall remain subject to this section.
- (c) The NO_x emission budget.
- (1) The state NO_x emission budget is as follows:
 - (A) Five thousand nine hundred ten (5,910) tons of NO_x from all budget sources except MWC units during each control period, plus the baseline control period emissions of any opt in industrial, cogeneration, or utility unit, for the years 1999 through and including 2002.
 - (B) Four thousand five hundred twenty-two (4,522) tons of NO_x from all budget sources except MWC units during each control period, plus the baseline control period emissions of any opt in industrial, cogeneration, or utility unit, for the year 2003 and each year thereafter.
 - (C) One thousand one hundred sixty-two (1,162) tons of NO_x from all MWC units during each control period, plus the baseline control period emissions of any opt in MWC unit, for the year 2003 and each year thereafter. This requirement shall apply in addition to any other limitation of NO_x emissions from MWC units set forth in the Regulations of Connecticut State Agencies.
 - (2) The commissioner shall modify the emission budget, established in subdivision (1) of this subsection, to include sources that opt into the requirements of this section pursuant to subdivision (b)(2) of this section. The commissioner shall record and maintain any modification of the initial budget, and annually submit any modification by January 31 to the Administrator.
 - (3) The commissioner shall implement the emission budget by allocation of allowances, as described in subsection (d) of this section.
 - (4) Nothing in this section waives or makes less stringent any NO_x reduction requirement, including Reasonably Available Control Technology (RACT) for owners or operators of major sources of NO_x, or preconstruction review of new sources of NO_x.

(d) Annual allowance allocation.

- (1) The commissioner shall annually, by May 1, reserve or allocate allowances in accordance with the provisions of this subsection.
- (2) For the control periods of the years 1999, 2000, 2001, and 2002, the commissioner shall allocate to the owners or operators of budget sources, excluding MWC units, up to 5,910 allowances. For the control period of the year 2003, and every year thereafter, the commissioner shall allocate to the owners or operators of budget sources, excluding MWC units, up to 4,522 allowances. Nothing herein shall require the commissioner to allocate all allowances.
- (3) For the control period of the year 2003, and every year thereafter, the commissioner shall allocate to the owners or operators of MWC units up to 1,162 allowances. Nothing herein shall require the commissioner to allocate all allowances.
- (4) The commissioner shall establish the following accounts in the NATS:
 - (A) The Connecticut State Account, to hold the state NO_x emissions budget allowances for allocation to the compliance accounts of budget sources or to other accounts; and
 - (B) The Connecticut Retirement Account, to hold allowances exacted as allowance adjustments and permanently retired pursuant to subsection (n) of this section.
- (5) By May 1 of each of the years 1999, 2000, 2001, and 2002, the commissioner, in the following manner and order, shall:
 - (A) Reserve in the Connecticut State Account for each industrial unit and each cogeneration unit the number of allowances equal to the product of the following equation:

$$(\text{the lower of } [ER_{0.95\text{RACT}} \text{ or } ER_{0.95\text{P}} \text{ or } ER_{\text{ACTUAL}}] \times HI_{1.10\text{UA}} \times T) \div 2000$$

where:

$$ER_{0.95\text{RACT}} = 95\% \text{ of the unit's NO}_x \text{ RACT emission rate (in \#/MMBtu of heat input)}$$

$$ER_{0.95\text{P}} = 95\% \text{ of the unit's permitted emission rate (in \#/MMBtu of heat input)}$$

ER_{ACTUAL} = if the unit operated in 1990, the unit's actual emission rate (in #/MMBtu of heat input) during the 1990 control period. If the unit did not operate in 1990, the average actual emission rate during two representative consecutive control periods after 1990

$HI_{1.10UA}$ = 110% of the unit's average heat input (in MMBtu/hr) from May 1 through September 30 of the two prior years, unless the commissioner determines that an alternative period is more representative of operations

T = 3,672 hours

- (B) Reserve in the Connecticut State Account for each new unit and each new utility unit the number of allowances equal to the product of the following equation:

$$(ER_p \times HI_{MAX} \times T) \div 2000$$

where:

ER_p = the unit's permitted emission rate (in #/MMBtu of heat input)

HI_{MAX} = the unit's maximum heat input capacity (in MMBtu/hr)

T = 3,672 hours

- (C) Allocate to the compliance account of each baseline utility unit the number of allowances equal to the product of the following equation:

$$(A - A_{RES}) \times (HI_U \div HI_{TOTAL})$$

where:

A = 5,910 allowances

A_{RES} = the number of allowances reserved for industrial, cogeneration, new, and new utility units

HI_U = the baseline utility unit's heat input (in MMBtu) during the 1990 control period, as established in the 1990 OTC NO_x Baseline Emission Inventory

HI_{TOTAL} = the total heat input (in MMBtu) of the baseline utility units during the 1990 control period

- (6) After the end of the control period and before the allowance transfer deadline of each of the years 1999, 2000, 2001, and 2002, the commissioner, in the following manner and order, shall:

- (A) Allocate to the compliance account of each industrial and cogeneration unit the number of allowances equal to the product of the following calculation:

(the lower of [$ER_{0.95RACT}$ or $ER_{0.95P}$ or ER_{ACTUAL}] $\times HI_U \times T$) \div 2000

where:

$ER_{0.95RACT}$ = 95% of the unit's NO_x RACT emission rate (in #/MMBtu of heat input)

$ER_{0.95P}$ = 95% of the unit's permitted emission rate (in #/MMBtu of heat input)

ER_{ACTUAL} = if the unit operated in 1990, the unit's actual emission rate (in #/MMBtu of heat input) during the 1990 control period. If the unit did not operate in 1990, the average actual emission rate during two representative consecutive control periods after 1990

HI_U = the unit's actual heat input (in MMBtu/hr) during the preceding control period

T = 3,672 hours

- (B) Allocate to the compliance account of each new unit and each new utility unit the number of allowances equal to the product of the following calculation:

($ER_P \times HI_U \times T$) \div 2000

where:

ER_P = the unit's permitted emission rate (in #/MMBtu of heat input)

HI_U = the unit's actual heat input (in MMBtu/hr) during the preceding control period

$$T = 3,672 \text{ hours}$$

- (C) Allocate to the compliance account of each opt in unit the number of allowances equal to the product of the following calculation, subject to the limitation of subparagraph (i) of this subsection:

$$(HI_U \times \text{the lower of } [ER_{\text{BASE}} \text{ or } ER_p] \times T) \div 2000$$

where:

HI_U = the unit's actual heat input (in MMBtu/hr) during the preceding control period

ER_{BASE} = the unit's actual emission rate (in #/MMBtu) during the baseline control period

ER_p = the unit's permitted emission rate (in #/MMBtu) during the preceding control period

$$T = 3,672 \text{ hours}$$

- (i) the number of allowances allocated to an opt in unit shall not exceed the product of the following equation:

$$(HI_{\text{BASE}} \times \text{the lower of } [ER_{\text{BASE}} \text{ or } ER_p] \times T) \div 2000$$

where:

HI_{BASE} = the unit's heat input (in MMBtu/hr) during the baseline control period

ER_{BASE} = the unit's actual emission rate (in #/MMBtu of heat input) during the baseline control period

ER_p = the unit's permitted emission rate (in #/MMBtu of heat input) during the preceding control period

$$T = 3,672 \text{ hours}$$

- (D) If, during any calendar year, the total number of allowances reserved for industrial, cogeneration, new, and new utility units is greater than the total

number of allowances allocated to industrial, cogeneration, new, and new utility units after the control period, the commissioner shall mark the difference as unused reserved allowances and hold such allowances in the Connecticut State Account;

- (E) If the control period emissions of an industrial, cogeneration, new, or new utility units exceed the number of allowances reserved for such unit, the commissioner shall:
- (i) transfer to the compliance account of each such unit, in addition to the number of allowances reserved for such unit pursuant to subdivision (d)(5) of this section, the number of unused reserved allowances equal to the deficiency between the number of allowances reserved for such unit and the such unit's control period emissions, provided the number of unused reserved allowances in the Connecticut State Account equals or exceeds the total deficiency between such units' reserved allowances and their control period emissions, or
 - (ii) transfer to the compliance account of each such unit, in addition to the number of allowances reserved for such unit pursuant to subdivision (d)(5) of this section, the number of unused reserved allowances equal to the product of the following equation, rounded to the nearest whole allowance, provided the number of unused reserved allowances in the Connecticut State Account is less than the total deficiency between such units' reserved allowances and their control period emissions:

$$(D_U \div D_{TOTAL}) \times URA_{TOTAL}$$

where:

D_U = the deficiency between an industrial, cogeneration, new, and new utility unit's actual control period emissions and the its allowances reserved as set forth in subdivision (d)(5)

D_{TOTAL} = the total deficiency between industrial, cogeneration, new, and new utility units' actual control period emissions and their allowances reserved as set forth in subdivision (d)(5)

URA_{TOTAL} = the total number of unused reserved allowances in the

Connecticut State Account

- (F) The commissioner shall hold any remaining unused reserved allowances in the Connecticut State Account for reservation and allocation before the next control period.
- (7) By May 1 of the year 2003 and each year thereafter, the commissioner shall, in the following manner and order:

- (A) Reserve in the Connecticut State Account for each industrial unit and each cogeneration unit the number of allowances equal to the product of the following equation:

$$(\text{the lower of } [ER_{0.95\text{RACT}} \text{ or } ER_{0.95\text{P}} \text{ or } ER_{\text{ACTUAL}}] \times HI_{1.10\text{UA}} \times T) \div 2000$$

where:

$ER_{0.95\text{RACT}}$ = 95% of the unit's NO_x RACT emission rate (in #/MMBtu of heat input)

$ER_{0.95\text{P}}$ = 95% of the unit's permitted emission rate (in #/MMBtu of heat input)

ER_{ACTUAL} = if the unit operated in 1990, the unit's actual emission rate (in #/MMBtu of heat input) from May 1 through September 30, 1990. If the unit did not operate in 1990, the average actual emission rate during any two representative control periods after 1990

$HI_{1.10\text{UA}}$ = 110% of the unit's average heat input (in MMBtu/hr) from May 1 through September 30 of the two prior years, unless the commissioner determines that an alternative period is more representative of operations

T = 3,672 hours

- (B) Reserve in the Connecticut State Account for each new unit the number of allowances equal to the product of the following equation:

$$(ER_P \times HI_{\text{MAX}} \times T) \div 2000$$

where:

ER_p = the unit's permitted emission rate (in #/MMBtu of heat input)

HI_{MAX} = the unit's maximum heat input capacity (in MMBtu/hr)

T = 3,672 hours

- (C) Allocate to the compliance account of each baseline utility unit and each new utility unit the number of allowances equal to the product of the following equation:

$$(A - A_{RES}) \times (EO_U \div EO_{TOTAL})$$

where:

A = 4,522 allowances

A_{RES} = the number of allowances reserved for industrial, cogeneration, and new units

EO_U = the unit's average annual electricity output (in MWhr) during the three prior calendar years

EO_{TOTAL} = the total average annual electricity output (in MWhr) of baseline utility units and new utility units during the three prior calendar years

- (D) Allocate to the compliance account each MWC unit the number of allowances equal to the product of the following equation:

$$(B \times [W_U \div W_{TOTAL}]) + (B \times [EO_U \div EO_{TOTAL}])$$

where:

B = 581 allowances

W_U = the MWC unit's average annual amount of waste combusted (in tons) during the three prior calendar years

W_{TOTAL} = the total average annual amount of waste combusted (in tons) by

MWC units during the three prior calendar years

EO_U = the MWC unit's average annual electricity output (in MWhr) during the three prior calendar years

EO_{TOTAL} = the total average annual electricity output (in MWhr) of MWC units during the three prior calendar years

- (8) After the end of the control period and before the allowance transfer deadline of the year 2003 and each year thereafter, the commissioner shall, in the following manner and order:

- (A) Allocate to the compliance account of each industrial and cogeneration unit the number of allowances equal to the product of the following calculation:

$$(\text{the lower of } [ER_{0.95RACT} \text{ or } ER_{0.95P} \text{ or } ER_{ACTUAL}] \times HI_U \times T) \div 2000$$

where:

$ER_{0.95RACT}$ = 95% of the unit's NO_x RACT emission rate (in #/MMBtu of heat input)

$ER_{0.95P}$ = 95% of the unit's permitted emission rate (in #/MMBtu of heat input)

ER_{ACTUAL} = if the unit operated in 1990, the unit's actual emission rate (in #/MMBtu of heat input) during the 1990 control period. If the unit did not operate in 1990, the average actual emission rate during two representative consecutive control periods after 1990

HI_U = the unit's actual heat input (in MMBtu/hr) during the preceding control period

T = 3,672 hours

- (B) Allocate to the compliance account of each new unit the number of allowances equal to the product of the following calculation:

$$(ER_P \times HI_U \times T) \div 2000$$

where:

ER_p = the unit's permitted emission rate (in #/MMBtu of heat input)

HI_U = the unit's actual heat input (in MMBtu/hr) during the preceding control period

T = 3,672 hours

- (C) Allocate to the compliance account of each opt in unit the number of allowances equal to the product of the following calculation, subject to the limitation of subparagraph (i) of this subsection:

$$(HI_U \times \text{the lower of } [ER_{BASE} \text{ or } ER_p] \times T) \div 2000$$

where:

HI_U = the unit's actual heat input (in MMBtu/hr) during the preceding control period

ER_{BASE} = the unit's actual emission rate (in #/MMBtu) during the baseline control period

ER_p = the unit's permitted emission rate (in #/MMBtu) during the preceding control period

T = 3,672 hours

- (i) the number of allowances allocated to an opt in unit shall not exceed the product of the following equation:

$$(HI_{BASE} \times \text{the lower of } [ER_{BASE} \text{ or } ER_p] \times T) \div 2000$$

where:

HI_{BASE} = the unit's heat input (in MMBtu/hr) during the baseline control period

ER_{BASE} = the unit's actual emission rate (in #/MMBtu of heat input) during the baseline control period

ER_p = the unit's permitted emission rate (in #/MMBtu of heat input) during the preceding control period

$$T = 3,672 \text{ hours}$$

- (D) If, during any calendar year, the total number of allowances reserved for industrial, cogeneration, and new units is greater than the total number of allowances allocated to industrial, cogeneration, and new units after the control period, the commissioner shall mark the difference as unused reserved allowances and hold such allowances in the Connecticut State Account;
- (E) If the control period emissions of an industrial, cogeneration, new, or new utility units exceed the number of allowances reserved for such unit, the commissioner shall:
- (i) transfer to the compliance account of each such unit, in addition to the number of allowances reserved for such unit pursuant to subdivision (d)(5) of this section, the number of unused reserved allowances equal to the deficiency between the number of allowances reserved for such unit and the such unit's control period emissions, provided the number of unused reserved allowances in the Connecticut State Account equals or exceeds the total deficiency between such units' reserved allowances and their control period emissions, or
 - (ii) transfer to the compliance account of each such unit, in addition to the number of allowances reserved for such unit pursuant to subdivision (d)(5) of this section, the number of unused reserved allowances equal to the product of the following equation, rounded to the nearest whole allowance, provided the number of unused reserved allowances in the Connecticut State Account is less than the total deficiency between such units' reserved allowances and their control period emissions:

$$(D_U \div D_{TOTAL}) \times URA_{TOTAL}$$

where:

D_U = the deficiency between an industrial, cogeneration, new, and new utility unit's actual control period emissions and the its allowances reserved as set forth in subdivision (d)(5)

D_{TOTAL} = the total deficiency between industrial, cogeneration, new, and new utility units' actual control period emissions and their allowances reserved as set forth in

subdivision (d)(5)

URA_{TOTAL} = the total number of unused reserved allowances in the Connecticut State Account

- (F) The commissioner shall hold any remaining unused reserved allowances in the Connecticut State Account for reservation and allocation before the next control period.
- (9) A budget source that begins operation after the initial reservation and allocation of allowances for a control period shall obtain by the allowance transfer deadline a number of allowances equal to or exceeding the total tons of NO_x emitted from such budget source during that control period. Allowances may be obtained from existing budget sources.
- (10) A budget source that ceases to operate after the initial reservation and allocation of allowances will continue to receive allowances for each control period in the allocation period, unless a request to reallocate allowances has been filed pursuant to subdivision (f)(11) of this section.
- (e) Early emission reductions credit.
- (1) The owner or operator of any budget source, except a MWC unit, that reduces NO_x emissions from May 1 through September 30 in the years 1997 or 1998 may request, in accordance with subdivision (6) of this subsection, that the commissioner approve such early emission reductions in accordance with the provisions of subdivision (2) of this subsection and convert such early emission reductions to allowances for use beginning in 1999.
- (2) The commissioner may approve any early emission reductions for use as allowances if such reductions are real, quantifiable, surplus, and enforceable. In addition, the commissioner may approve any early emission reductions for use as allowances if the early emission reduction is based on a NO_x emission rate that is the most stringent of:
- (A) The level of control required by the OTC MOU;
- (B) The permitted allowable emissions of the budget source, unless the budget source is a replacement source for repowering, whereupon the level of control required by the OTC MOU supersedes the permitted allowable emissions;
- (C) The actual emissions of the budget source during the 1990 control period; and

- (D) The average actual emissions of the budget source during two (2) consecutive and representative control periods within the first five (5) years of operation, if the budget source commenced operation after 1990.
 - (3) The amount of early reduction credits shall presume a capacity utilization (in MMBtu of heat input) equal to the average capacity utilization of the budget source for the two (2) consecutive calendar years preceding the application, adjusted for any reduced capacity utilization that resulted from shutdown or curtailment of operations.
 - (4) If the budget source demonstrates to the satisfaction of the commissioner that two (2) alternative consecutive control periods within the five (5) years immediately preceding the early reduction credit request are more representative of normal operations, the amount of early reduction credits shall presume the capacity utilization of the two (2) alternative consecutive control periods.
 - (5) A budget source that repowers is eligible for early reduction credit provided that, in addition to the other requirements set forth in this subsection, the permit for construction of the replacement source is issued after the effective date of this section, and the budget source being replaced ceases operation in 1997 or 1998.
 - (6) Early reduction credits will be eligible for a one-time conversion to allowances in 1999. Emission reductions achieved for purposes of early reduction credit cannot be used as emission reduction credits or discrete emission reductions.
- (f) Allowance use and transfer.
- (1) An allowance shall not constitute a security or other form of property. An allowance reserved, allocated, banked, or traded is reserved, allocated, banked, or traded subject to all applicable legal requirements and limitations including, but not limited to, the requirements of this section, the emission budget set forth in subsection (c) of this section, the allowance allocation procedure set forth in subsection (d) of this section, the allowance penalties identified in subsection (n) of this section, and sections 22a-1, 22a-5, 22a-174, and 22a-174c of the Connecticut General Statutes.
 - (2) For compliance with this section, the owner or operator of a budget source shall, by the allowance transfer deadline of each calendar year, either hold a quantity of allowances in the budget source's compliance account that equals or exceeds the total tons of NO_x emitted from that budget source during the most recent control period, or submit a valid allowance transfer request to the Administrator.
 - (3) Except as provided in subdivision (4) of this subsection, allowances cannot be used to

meet or exceed the limitations of any permit, order, or other applicable requirement.

- (4) Except as provided in subdivision (5) of this subsection, the commissioner, by order or permit, may allow the use of allowances beyond those otherwise required by this section to comply with subsection (e) of section 22a-174-22 of the Regulations of Connecticut State Agencies pursuant to the provisions of subsection (j) of section 22a-174-22 of the Regulations of Connecticut State Agencies.
- (5) Notwithstanding subdivision (4) of this subsection, the owner or operator of a MWC unit for which construction commenced on or after December 20, 1989, shall not use allowances to comply with any other limitation of NO_x emissions applicable to such MWC unit set forth in the Regulations of Connecticut State Agencies.
- (6) Emission offsets required by the Regulations of Connecticut State Agencies for new or modified major stationary sources of NO_x must be obtained in accordance with section 22a-174-3 of the Regulations of Connecticut State Agencies, and are subject to the offset requirements of section 173 of the Clean Air Act. Offsets may be obtained through the NO_x Emission Reduction Credit Program as available or applicable. Allowances under this section may not be used as offsets. However, if the budget source reduces its emissions such that not all allowances are used, and where the unused allowances represent real reductions in actual annual emissions, these unused allowances may be approvable for use as offsets under the Regulations of Connecticut State Agencies, but in no instance may emission reductions be used to satisfy both the requirements of this section and the offset regulation of section 22a-174-3 of the Regulations of Connecticut State Agencies.
- (7) Allowances allocated pursuant to this section may be sold or traded to the holders of allowances in other states under a program established in accordance with the OTC MOU and which program is contained in an approved state implementation plan (SIP). The commissioner has discretion whether to permit the transfer of allowances between holders of allowances in Connecticut and the holders of allowances in states with a submitted, but as yet unapproved, SIP.
- (8) To complete an allowance transfer:
 - (A) The transferor shall document the transfer request in paper or electronic form as directed by the Administrator. The transferor shall provide to the Administrator, at a minimum, the following information:
 - (i) the account numbers of the transferor's and transferee's accounts,

- (ii) the names and addresses of the owners of the originating and acquiring accounts, and
 - (iii) the serial number of each allowance being transferred.
- (B) The AAR or Alternate AAR of the transferor and transferee shall authorize and certify each allowance that is the subject of the transfer request. The transferor and the transferee shall personally examine the transfer request and authorization to transfer and be familiar with the information contained therein and contained in all attachments, and make inquiry of those individuals responsible for obtaining the information to ensure the information is true, accurate, and complete. The submission of false information may subject the transferor and/or transferee to significant penalties, including fines and imprisonment pursuant to section 22a-175 of the Connecticut General Statutes and section 22a-6 under section 53a-157 of the Connecticut General Statutes. The request for transfer shall include the following signed statement of certification:

I am authorized to make this submission on behalf of the owners of the budget source and I hereby certify under penalty of law, that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment.
- (C) The AAR or Alternate AAR of the transferor shall provide a copy of the transfer request to the transferor.
- (D) The transfer is complete when the Administrator verifies that:
 - (i) each allowance listed in the transfer request is held by the transferor in an account at the time the transfer is to be recorded;
 - (ii) the proposed transferee has an account in the NATS; and
 - (iii) the transferor and transferee, or their respective AARs, filed the transfer request.

- (9) Allowance transfers determined to be valid through verification by the Administrator shall be recorded in the NATS by deducting the allowances from the originating account and adding them to the acquiring account.
 - (10) At the request of the state in which the transferor and transferee are located, the owner or operator of the budget source shall provide information to the requesting state regarding transaction cost and allowance price.
 - (11) If the owner or operator of a budget source determines that some or all allowances to be allocated to the compliance account of such budget source should be transferred to the owner or operator of another budget source for the remainder of the current allocation period, the AAR or Alternate AAR of the originating account shall submit a request for transfer to the Administrator. This request shall conform to the specifications of subdivision (8) of this subsection, and shall be submitted to the commissioner with a letter requesting that future allowance allocations for the remainder of the allocation period be made directly to the acquiring account.
 - (12) If an owner or operator of a budget source reduces emissions from such budget source and transfers such emission reductions as offsets to sources of NO_x not subject to a program established in accordance with the OTC MOU and contained in an approved state implementation plan (SIP), the allowances representing the emissions reductions shall be deducted from its compliance account in an amount equivalent to the emission reductions transferred off-budget. This subdivision is inapplicable if the source receiving offsets opted into a program established in accordance with the OTC MOU and contained in an approved SIP before its construction approval was granted.
- (g) Allowance banking.
- (1) Unused allowances may be retained in a compliance account from one year to a future year.
 - (2) Unused allowances may be retained in a general account from one year to a future year.
 - (3) Unless otherwise provided by subdivision (4) of this subsection, allowances unused as of the allowance transfer deadline shall be retained in the compliance or general account and designated as banked allowances.
 - (4) Use of banked allowances.
 - (A) The total number of banked allowances in the OTR, as determined by the Administrator beginning January 31, 1999, and annually thereafter, shall be used

to determine the number of banked allowances available for use in the current year.

- (B) If the total number of banked allowances in the OTR is less than or equal to ten percent (10%) of the OTR NO_x budget for the current year control period, all banked allowances may be used in the current year on a one-for-one basis.
- (C) If the total number of banked allowances in the OTR exceeds ten percent (10%) of the OTR NO_x budget for the current year control period, in accordance with subparagraph (D) of this subsection the following ratio, as computed by the Administrator, shall determine the number of banked allowances that shall be used on a one-for-one basis and the number of allowances that shall be used on a two-for-one basis in the current year control period:

$$(0.1 \times B_{\text{OTC}}) \div A_{\text{BANKED}}$$

where:

B_{OTC} = the regional NO_x budget of the current year control period

A_{BANKED} = the total number of banked allowances in the OTR

- (D) The product of the ratio calculated in subparagraph (C) of this subsection is the number of banked allowances in the account that may be used in the current year control period on a one-for-one basis. Allowances in excess of this number shall be used on a two-for-one basis.

(h) The NO_x Allowance Tracking System.

- (1) The NO_x Allowance Tracking System (NATS) is an electronic database for record keeping and reporting for all allowances used, transferred, and banked pursuant to this section. The NATS shall track:
 - (A) The compliance account established for each budget source;
 - (B) The allowances allocated to each budget source;
 - (C) The allowances deducted from the compliance account of each budget source to cover control period emissions of NO_x;
 - (D) The general accounts opened by persons;

- (E) The allowances held in each account; and
 - (F) Allowance transfers.
- (2) Each budget source shall have a compliance account with a unique account number provided. For each compliance account, the following information shall be recorded and maintained:
- (A) The name of the account owner;
 - (B) The name, mailing address, and telephone number of the AAR and Alternate AAR; and
 - (C) The street address and state where the associated budget source is sited.
- (3) Any person may establish a general account in the NATS. Each general account shall have a unique account number assigned. For each general account, the following information shall be recorded and maintained:
- (A) The name of the account owner; and
 - (B) The name, mailing address, and telephone number of the AAR and Alternate AAR.
- (4) Each owner of a compliance or general account shall designate one AAR and may designate one Alternate AAR to represent the owner. The AAR shall be responsible for all transactions and reports submitted to the Administrator. Only the AAR can request the transfer of allowances in a compliance or general account. The Alternate AAR shall have the same authority as the AAR, but the AAR shall receive all correspondence from the Administrator.
- (5) The AAR shall be designated as such by the owner. Such designation shall not become effective until the commissioner receives a signed form entitled "Account Certificate of Representation," which shall contain, at a minimum, the following:
- (A) Identification of the budget source by plant name, state, and ORIS code number for which the Account Certificate of Representation is submitted;
 - (B) The name, address, telephone and facsimile numbers, e-mail address (if available), and AAR identification number (if known) of the AAR and the Alternate AAR;

- (C) The names and addresses of all owners and operators of the budget source;
 - (D) A statement signed by the AAR or Alternate AAR stating: "I certify that I, [name], was selected as the Authorized Account Representative or Alternate Authorized Account Representative, as applicable, by an agreement binding on the owners and operators of the budget source(s) legally designated as [plant name]"; and
- (6) The owner of a compliance account shall designate the AAR and Alternate AAR, as desired, by January 31, 1998. After January 31, 1998, the owner of a compliance or general account may replace the AAR or Alternate AAR by submitting a new, signed Account Certificate of Representation. For the owner of a budget source entering the NO_x Budget Program after January 31, 1998, the information specified in subdivision (5) of this subsection shall be submitted to the commissioner at the time the budget source becomes subject to this section, or a request is made to opt into the program set forth in this section. Any change of AAR or Alternate AAR and the naming of the AAR and Alternate AAR shall be confirmed after the redesignation is recorded in the NATS.
- (i) Emissions monitoring.
- (1) The owner or operator of each budget source shall:
 - (A) Monitor NO_x emissions from each budget source in accordance with this subsection and *Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program* (Ozone Transport Commission, Washington, D.C., January 28, 1997);
 - (B) Except as provided in subparagraphs (i)(1)(B)(i) and (i)(1)(B)(ii) of this section, submit to the commissioner, by July 1, 1998, a monitoring plan in accordance with this subsection and *Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program* (Ozone Transport Commission, Washington, D.C., January 28, 1997). The monitoring plan, at a minimum, shall include a description of the monitoring system or systems to be used at the budget source.
 - (i) the owner or operator of a budget source, except a MWC unit, that commences operation after the effective date of this section shall submit a monitoring plan in accordance with this subsection and *Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program* (Ozone Transport Commission, Washington, D.C.,

January 28, 1997) within ninety (90) days after such budget source commences operation.

- (ii) the owner or operator of an MWC unit that commenced operations before the effective date of this section shall submit to the commissioner, by July 1, 2002, a monitoring plan in accordance with this subsection and *Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program* (Ozone Transport Commission, Washington, D.C., January 28, 1997);
 - (iii) the owner or operator of an MWC unit that commences operation after the effective date of this section shall submit to the commissioner, within ninety (90) days after commencement of operations, a monitoring plan in accordance with this subsection and *Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program* (Ozone Transport Commission, Washington, D.C., January 28, 1997);
- (C) Except as provided in subparagraphs (i)(1)(C)(i) and (i)(1)(C)(ii) of this section, install, operate, and certify a monitoring system or systems as required by this section no later than December 31, 1998. Certification testing must be in accordance with the requirements specified in *Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program* (Ozone Transport Commission, Washington, D.C., January 28, 1997),
- (i) the owner or operator of a budget source that commences operation after the effective date of this section shall install, operate, and certify a monitoring system(s) as required by this section no later than April 30 of the year following the date of the commencement of operations. Certification testing must be in accordance with the requirements specified in *Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program* (Ozone Transport Commission, Washington, D.C., January 28, 1997),
 - (ii) the owner or operator of an MWC unit that commenced operations before the effective date of this section shall install, operate, and certify a monitoring system(s) as required by this section no later than December 31, 2002. Certification testing must be in accordance with the requirements specified in *Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program* (Ozone Transport Commission, Washington, D.C., January 28, 1997);

- (iii) the owner or operator of an MWC unit that commenced operations after the effective date of this section shall install, operate, and certify a monitoring system(s) as required by this section within one hundred eighty (180) days after commencement of operations. Certification testing must be in accordance with the requirements specified in *Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program* (Ozone Transport Commission, Washington, D.C., January 28, 1997);
 - (D) Perform initial testing and periodic calibration, accuracy testing, and quality assurance/quality control testing of all monitoring systems for each budget source as specified in *Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program* (Ozone Transport Commission, Washington, D.C., January 28, 1997), subject to the following requirements:
 - (i) the owner or operator of a budget source shall notify the commissioner in writing prior to conducting any certification or quality assurance/quality control testing. A budget source subject to 40 CFR Part 75 must comply with the notification requirements in 40 CFR Part 75, Subpart G. A Non-Part 75 budget source shall notify the commissioner at least thirty (30) days prior to conducting any tests, and
 - (ii) any such testing shall be conducted in accordance with a test protocol approved by the commissioner;
 - (E) Replace any missing or invalid data with representative default data in accordance with the missing data provisions of 40 CFR Part 75 and *Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program* (Ozone Transport Commission, Washington, D.C., January 28, 1997); and
 - (F) Report NO_x emissions data to the Administrator in accordance with subsection (j) of this section.
- (2) The owner or operator of a budget source subject to 40 CFR Part 75 shall demonstrate compliance with this section with a certified 40 CFR Part 75 monitoring system and the following procedures, as applicable:
- (A) If such owner or operator has installed a flow monitor certified under 40 CFR Part 75, NO_x emissions in pounds per hour shall be determined using a NO_x CEMS and the flow monitor. NO_x in pounds per MMBtu shall be determined

by using the procedure in 40 CFR Part 75, Appendix F, Section 3. The heat input in MMBtu per hour shall be determined by using the procedures in 40 CFR Part 75, Appendix F, Section 5. NO_x emissions in pounds per hour shall be determined by multiplying NO_x in pounds per MMBtu by the heat input in MMBtu per hour;

- (B) If such owner or operator has not installed a certified flow monitor, but has installed a NO_x CEMS, then such owner or operator shall determine NO_x emissions in pounds per hour using the NO_x CEMS and hourly heat input. NO_x in pounds per MMBtu shall be determined by using the procedure in 40 CFR Part 75, Appendix F, Section 3. The hourly heat input in MMBtu per hour shall be determined by using the procedures in 40 CFR Part 75, Appendix D. NO_x emissions in pounds per hour shall be determined by multiplying NO_x in pounds per MMBtu by the heat input in MMBtu per hour;
 - (C) If such owner or operator uses the procedures in 40 CFR Part 75, Appendix E, then NO_x emissions in pounds per hour shall be determined by using the Appendix E NO_x correlation curve and the budget source's hourly heat input. NO_x in pounds per MMBtu shall be determined by using the procedure in 40 CFR Part 75, Appendix E. The hourly heat input in MMBtu per hour shall be determined by using the procedures in 40 CFR Part 75, Appendix D. NO_x emissions in pounds per hour shall be determined by multiplying NO_x in pounds per MMBtu by the heat input in MMBtu per hour; and
 - (D) If such owner or operator uses the procedures in 40 CFR Part 75, Subpart E to determine the NO_x emission rate, then NO_x emissions in pounds per hour shall be determined using the alternative monitoring method approved under 40 CFR Part 75, Subpart E and the procedures contained in *Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program* (Ozone Transport Commission, Washington, D.C., January 28, 1997).
- (3) The owner or operator of a Non-Part 75 budget source shall:
- (A) Prepare and obtain approval of a monitoring plan as specified in subdivision (4) of this subsection and subparagraph (i)(1)(B);
 - (B) Determine the NO_x emission rate using a methodology specified in subdivision (5) of this subsection;
 - (C) Determine the heat input rate using the methodology described in subdivision (6) of this subsection; and

- (D) Convert the NO_x emission rate and heat input rate to NO_x emissions in pounds per hour using the procedure described in subdivision (7) of this subsection.
- (4) The owner or operator of a Non-Part 75 budget source who wants to use an alternative monitoring method shall not commence construction or testing of any alternative monitoring system before the commissioner approves the alternative monitoring plan. An approvable alternative monitoring plan, at a minimum, shall contain the following, as appropriate:
- (A) A description of the proposed monitoring system, including the manufacturer, the serial number of each component, the measurement ranges and the span of each component, and documentation to demonstrate that the measurement range of each component is appropriate for measuring all expected values. This requirement applies to all monitoring systems proposed under this subdivision, including CEMS, that have not been certified pursuant to 40 CFR Part 75;
 - (B) An estimate of the accuracy of the monitoring system and documentation of how the estimate of accuracy was determined;
 - (C) A description of the tests to be performed for initial certification of the monitoring system, initial quality assurance, periodic quality assurance, and relative accuracy, meeting all the requirements contained in *Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program* (Ozone Transport Commission, Washington, D.C., January 28, 1997); and
 - (D) The following additional information:
 - (i) if the alternative monitoring method of determining heat input involves boiler efficiency testing, a description of the test used to determine boiler efficiency,
 - (ii) if the alternative monitoring method uses fuel sampling, a description of the test to be used in the fuel sampling program,
 - (iii) if the alternative monitoring method uses a default emission rate or unit specific emission factor, as specified in subparagraph (C)(ii) of subdivision (5) of this subsection, the monitoring plan shall include:
 - (aa) all information necessary to support the emission rate, including historical monitoring data and historical fuel usage data. If the

source plans to conduct emission testing to determine the emission rate, the plan shall include a test protocol explaining the testing to be conducted,

- (bb) procedures to demonstrate that any control equipment operating during the testing to develop source-specific emission factors or during the development of load-based emissions curves, is in use when those emission factors or emissions curves are applied to estimate NO_x emissions, and
 - (cc) alternative uncontrolled emission rates to be used to estimate NO_x emissions during periods when control equipment is inoperable or unused,
 - (iv) if the alternative monitoring method uses a fuel flow meter that is not certified pursuant to 40 CFR Part 75 to determine heat input, the monitoring plan shall include a description of all components of the fuel flow meter, the manufacturer's original accuracy specifications of the fuel flow meter, the estimated current accuracy of the fuel flow meter, and the most recent calibration of each component.
- (5) The owner or operator of a Non-Part 75 budget source shall determine the NO_x emission rate, expressed in MMBtu, by using one of the following methods:
- (A) Monitor NO_x emissions in accordance with 40 CFR Part 75;
 - (B) If such owner or operator is required to install and operate a NO_x CEMS under 40 CFR Part 60, or in accordance with state permit or order, then that NO_x CEMS shall be used to meet the monitoring requirements of this subsection. All 40 CFR Part 60 monitors used for this purpose shall meet the quality assurance criteria described in *Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program* (Ozone Transport Commission, Washington, D.C., January 28, 1997). If a 40 CFR Part 60 CEMS cannot be used to report data for this section because such CEMS fails to meet the requirements of *Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program* (Ozone Transport Commission, Washington, D.C., January 28, 1997), missing data shall be substituted using the procedures in 40 CFR Part 75, Subpart D. A CEMS not initially certified under 40 CFR Part 75 or 40 CFR Part 60 shall meet the initial certification requirements contained in *Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program* (Ozone Transport Commission,

Washington, D.C., January 28, 1997);

- (C) If such owner or operator does not have a NO_x CEMS, such owner or operator may request the approval of the commissioner to use any of the following methodologies, as appropriate, to determine the NO_x emission rate:
 - (i) for a boiler or turbine, the procedures contained in 40 CFR Part 75, Appendix E, consistent with the provisions of *Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program* (Ozone Transport Commission, Washington, D.C., January 28, 1997),
 - (ii) for a combustion turbine, the default emission factors to determine the NO_x emission rate in pounds per hour, as follows:
 - (aa) for a gas-fired turbine, the default emission factor shall be 0.7 #/MMBtu,
 - (bb) for an oil-fired turbine, the default emission factor shall be 1.2 #/MMBtu,
 - (cc) for a gas- or oil-fired turbine, a unit-specific default factor equal to the maximum potential NO_x emission rate as determined through testing conducted in accordance with a protocol approved by the commissioner, and
 - (dd) for a gas-fired boiler, the default emission factor shall be 1.5 #/MMBtu or a unit-specific default factor equal to the maximum potential NO_x emission rate as determined through testing conducted in accordance with a protocol approved by the commissioner.
 - (ee) for an oil-fired boiler, the default emission factor shall be 2.0 #/MMBtu or a unit-specific default factor equal to the maximum potential NO_x emission rate as determined through testing conducted in accordance with a protocol approved by the commissioner.
- (6) The owner or operator of a budget source without a flow CEMS shall request approval from the commissioner, on forms prescribed by the commissioner, to use any of the following methodologies to determine the hourly heat input rate:

- (A) A flow monitor and a diluent monitor meeting the requirements of 40 CFR Part 75 and the procedures in 40 CFR Part 75, Appendix F, Section 5;
- (B) For a budget source that combusts only oil or natural gas, a fuel flow monitor meeting the requirements of 40 CFR Part 75, Appendix D and the procedures of 40 CFR Part 75, Appendix F, Section 5;
- (C) For a budget source that combusts only oil or natural gas and measures fuel on a frequency other than hourly, the owner or operator must report fuel usage on an hourly basis by apportioning the fuel based on electrical load in accordance with the following formula:

$$FU_H = (EL_H \div EL_{TOTAL}) \times FU_{TOTAL}$$

where:

FU_H = Hourly fuel usage

EL_H = Hourly electrical load

EL_{TOTAL} = Total electrical load

FU_{TOTAL} = Total fuel usage

- (D) For a budget source that combusts any fuel other than oil or natural gas, one of the following alternative methods of determining heat input, as approved by the commissioner:
 - (i) conducting fuel sampling and analysis, and monitoring fuel usage,
 - (ii) using boiler efficiency curves and other monitored information, such as boiler steam output, and
 - (iii) any other methods approved by the commissioner that meet the requirements of *Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program* (Ozone Transport Commission, Washington, D.C., January 28, 1997).
- (E) The alternative methods for determining heat input are subject to initial and periodic relative accuracy, and quality assurance testing requirements as prescribed by *Guidance for Implementation of Emission Monitoring*

Requirements for the NO_x Budget Program (Ozone Transport Commission, Washington, D.C., January 28, 1997).

- (7) The hourly NO_x emission rate in pounds per MMBtu, as determined in accordance with subdivision (5) of this subsection, and hourly heat input rate in MMBtu per hour, as determined in accordance with subdivision (6) of this subsection, shall be multiplied to determine the NO_x emission rate in pounds per hour. The owner or operator of a budget source shall report this figure to the Administrator pursuant to subsection (l) of this section.
- (j) Record keeping.
 - (1) The owner or operator of a budget source shall make records of all measurements, data, reports, and other information required by this section or other state law, regulation, permit, or order.
 - (2) The owner or operator of a budget source shall maintain such records for a period of five (5) years or such longer period if required by the budget source's operating permit.
 - (3) The records and documents required by this subsection shall be made available to the commissioner upon the request of the commissioner.
- (k) Reporting.
 - (1) The AAR or Alternate AAR of a budget source shall submit to the Administrator emissions and operations information for all four calendar quarters of each year for data monitored using a CEMS, and for the second and third calendar quarters of each year for data measured or estimated using non-CEMS-based methodologies in accordance with 40 CFR Part 75, Subpart G and *Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program* (Ozone Transport Commission, Washington, D.C., January 28, 1997). The AAR or Alternate AAR shall submit this information in an electronic format consistent with the requirements of *Emission Reporting Requirements and Instructions (EDR 2.0)* (United States Environmental Protection Agency, Acid Rain Division, July 3, 1997), or in any other format approved by the commissioner and the Administrator.
 - (2) The AAR or Alternate AAR of a budget source shall provide, in the same quarterly reports, NO_x emissions in pounds per hour for every hour of the control period, and cumulative quarterly and control period NO_x emission data in pounds. The AAR or Alternate AAR shall submit this information in a format consistent with *Emission Reporting Requirements and Instructions (EDR 2.0)* (United States Environmental

Protection Agency, Acid Rain Division, July 3, 1997).

- (3) The AAR or Alternate AAR of a budget source subject to 40 CFR Part 75 shall submit the data required by this subsection as part of the quarterly reports submitted to the Administrator to comply with 40 CFR Part 75.
- (4) If the owner or operator of a budget source permanently retires the budget source, such owner or operator may obtain an exemption from the requirements of subsections (i) and (j) of this section from the commissioner. The AAR of the budget source must file with the commissioner a request for retirement exemption that identifies the budget source and the date of retirement. The commissioner may approve the request, subject to conditions deemed necessary by the commissioner, or deny the request. The commissioner shall send any notice of approval or denial of the request to the AAR and the Administrator.

(I) Annual reconciliation of allowances.

- (1) The commissioner may consider allowance allocations and transfers recorded in the NATS, and monitored emissions data recorded in the NETS to determine compliance with this section.
- (2) Each year, the AAR or Alternate AAR of a budget source shall submit a request to the Administrator between November 1 through December 31, inclusive, to deduct from the budget source's compliance account the number of allowances equal to the NO_x emissions in tons emitted by the budget source during the most recent control period. The AAR shall identify the compliance account from which the deductions shall be made and the serial numbers of the allowances to be deducted.
- (3) Regardless of the request submitted pursuant to subdivision (2) of this subsection, the number of allowances equal to the NO_x emissions in tons emitted by the budget source during the most recent control period shall be deducted from the budget source's compliance account.
- (4) If the number of tons of NO_x emitted by the budget source in the most recent control period exceeds the number of allowances in the budget source's compliance account, the owner or operator of the budget source must obtain additional allowances so that the total number of allowances in the compliance account, including allowance transfers properly submitted to the Administrator by the allowance transfer deadline, equals the control period NO_x emissions in tons, rounded to the nearest whole ton.
- (5) If, by the allowance transfer deadline, the budget source fails to hold in its compliance

account allowances equal to NO_x emissions in tons during the control period, the owner or operator of the budget source shall be subject to enforcement action and allowance adjustments pursuant to subsection (n) of this section.

(m) Compliance certification.

- (1) For each control period, the AAR or Alternate AAR of a budget source shall submit an annual compliance certification to the commissioner no later than the allowance transfer deadline following the control period.
- (2) The compliance certification shall contain:
 - (A) The name and address of the owner and operator of the budget source, the name of the AAR or Alternate AAR, the NATS account number, and the address of the budget source, if different from that of the owner or operator;
 - (B) A statement that emissions data have been submitted to the NETS in accordance with subsection (k) of this section, and the requirements of the Administrator;
 - (C) A statement that the budget source operated in compliance with the allowances allocated for the control period, including those obtained through transfer by the allowance transfer deadline, and that allowances are held in the budget source's compliance account equal to the emissions recorded during the control period;
 - (D) A statement certifying that the monitoring plan of the budget source was maintained to reflect actual operation of the budget source;
 - (E) A statement certifying that all emissions from the budget source are accounted for, through either applicable monitoring or application of appropriate missing data procedures;
 - (F) A statement indicating whether the methods of operation or monitoring of the budget source changed during the current year; and
 - (G) Any other information the commissioner may request.
- (3) The commissioner shall have the right to verify compliance with this section by whatever means necessary, including, but not limited to:
 - (A) Inspecting unit operations records;

- (B) Obtaining information on allowance deduction and transfers from the NATS;
- (C) Obtaining emissions information from the NETS;
- (D) Requiring testing of emission monitoring devices; and
- (E) Requiring the budget source to conduct emissions testing under the supervision of the commissioner.

(n) Allowance adjustments.

- (1) For any control period during which emissions from a budget source exceed allowances held in the budget source's compliance account as of the allowance transfer deadline, allowances shall be deducted from the budget source's compliance account for the next control period at a rate of three (3) allowances for every one (1) ton of excess emissions and placed in the Connecticut Retirement Account.
- (2) When emissions from a budget source exceed allowances held in the budget source's compliance account as of the allowance transfer deadline, for purposes of determining the number of days of violation, any excess emissions for the control period shall presume that each day in the control period constitutes a day in violation, unless the owner or operator of a budget source can demonstrate, to the satisfaction of the commissioner, that a lesser number of days should be considered.
- (3) When emissions from a budget source exceed allowances held in the budget source's compliance account as of the allowance transfer deadline, each ton of excess emissions constitutes a separate violation.

(o) Program evaluation.

- (1) On or before May 1, 1999, the commissioner shall make available to the public a report that documents the number of early reduction credits converted to allowances for use in 1999.
- (2) The commissioner shall conduct an evaluation of the implementation of this section beginning in 2002 and every three (3) years thereafter. Each audit shall include, as appropriate:
 - (A) A confirmation of the accuracy of emissions reporting through validation of CEMS and data acquisition systems at the budget source;

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- (B) A review of the geographic and temporal transfer and use of allowances by budget sources;
- (C) An examination of the extent to which banked allowances have contributed to emissions in excess of the regional and state emission budget for each year preceding the audit; and
- (D) An assessment of the consistency of this section with the requirements for reasonable further progress and the attainment demonstration set forth in section 172 of the Clean Air Act.

STATEMENT OF PURPOSE: To reduce the emissions of nitrogen oxides from large stationary sources during the period of May 1 through September 30 by means of a market-based, cap-and-trade system, pursuant to the Ozone Transport Commission Memorandum of Understanding dated and signed September 27, 1994.